

Erratum: SPITZER-IRS spectral fitting of discs around binary post-AGB stars.

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ABSTRACT

Aims. no abstract

Methods. no abstract

Results. no abstract

Key words. stars: AGB, post-AGB - stars: binaries - stars: circumstellar matter - stars: abundances - Magellanic Clouds

Recently, we have discovered an error in our Monte-Carlo spectral fitting routine, more specifically where the errors on the fluxes were rescaled to get a reduced χ^2 of 1. The rescaled errors were too big, resulting in too wide a range of 'good' fits in our 100 step Monte-Carlo routine.

This problem affects Figs. 7-9 and Table A.1-A.2 in Gielen et al. (2008), Table 3 in Gielen et al. (2009a), and Table 4 in Gielen et al. (2009b).

We corrected for this error and present the new values and errors in the tables below. The new values and errors nearly all

fall within the old error range. Our best χ^2 values and overall former scientific results are not affected. With these new errors some possible new trends in the dust parameters might be observed. These will be discussed in an upcoming paper where we extend the sample presented in Gielen et al. (2008) with newly obtained SPITZER-IRS data.

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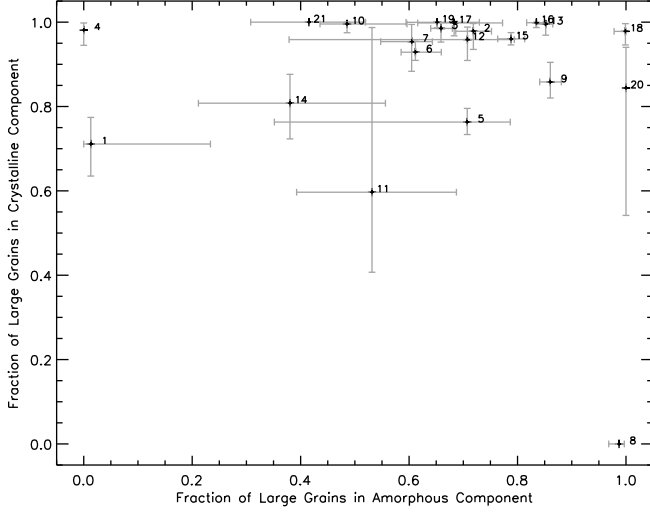


Fig. 1. Erratum for Fig. 7 in Gielen et al. (2008): The fraction of large grains in the amorphous component versus the fraction of large grains in the crystalline component, using the fitting with grain sizes of $0.1\,\mu\text{m}$ and $2.0\,\mu\text{m}$. Crystalline grains are almost completely made up of large $2.0\,\mu\text{m}$ grains.

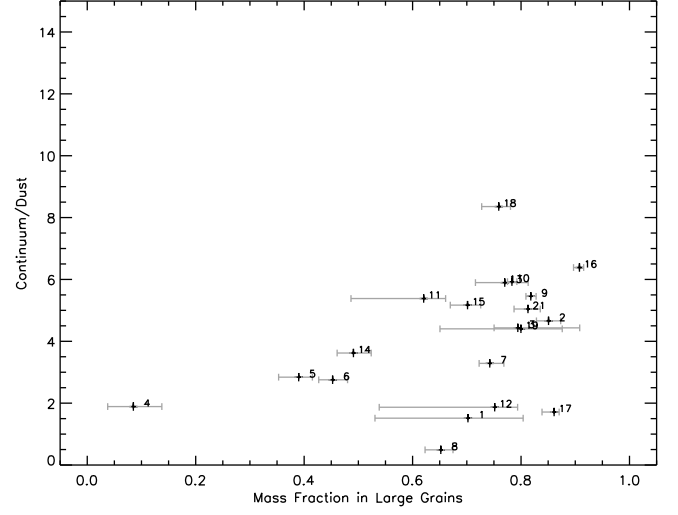


Fig. 3. Erratum for Fig. 9 in Gielen et al. (2008): The continuum-to-dust ratio of the observed spectra plotted against the mass fraction on large grains ($4.0\,\mu\text{m}$).

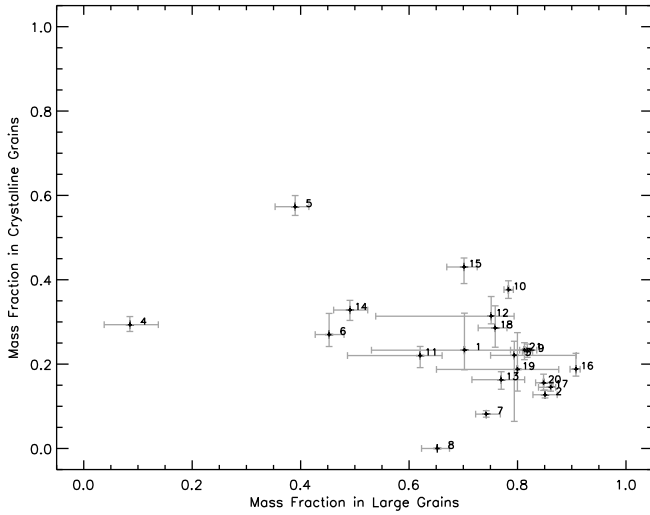


Fig. 2. Erratum for Fig. 8 in Gielen et al. (2008): The mass fraction in large grains ($4.0\,\mu\text{m}$) plotted against the mass fraction in crystalline grains, as derived from our best-fit parameters.

Table 1. Erratum for Table A.1 in Gielen et al. (2008): Best-fit parameters deduced from our full spectral fitting. Listed are the χ^2 , dust and continuum temperatures and their relative fractions.

N°	Name	χ^2	T_{dust1}	T_{dust2}	Fraction		T_{cont1}	T_{cont2}	Fraction	
			(K)	(K)	$T_{dust1} - T_{dust2}$		(K)	(K)	$T_{cont1} - T_{cont2}$	
1	EPLyr	56.7	100 ⁵⁰ ₅₀	200 ⁵⁰ ₅₀	0.90 ^{0.05} _{0.10} – 0.10 ^{0.10} _{0.05}		200 ⁵⁰ ₅₀	994 ⁵⁰ ₁₀₃	0.98 ^{0.01} _{0.01} – 0.02 ^{0.01} _{0.01}	
2	HD 131356	3.5	200 ⁵⁰ ₅₀	1000 ⁵⁰ ₅₀	0.90 ^{0.05} _{0.05} – 0.10 ^{0.05} _{0.05}		200 ⁵⁰ ₅₀	500 ⁵⁰ ₅₀	0.90 ^{0.01} _{0.01} – 0.10 ^{0.01} _{0.01}	
3	HD 213985	4.4	184 ⁵⁰ ₈₇	1000 ⁵⁰ ₅₀	0.90 ^{0.05} _{0.05} – 0.10 ^{0.05} _{0.05}		200 ⁵⁰ ₅₀	884 ⁵⁰ ₈₇	0.98 ^{0.01} _{0.01} – 0.02 ^{0.01} _{0.01}	
4	HD 52961	72.2	200 ⁵⁰ ₅₀	800 ⁵⁰ ₅₀	0.90 ^{0.05} _{0.05} – 0.10 ^{0.05} _{0.05}		100 ⁵⁰ ₅₀	1000 ⁵⁰ ₅₀	0.99 ^{0.01} _{0.01} – 0.01 ^{0.01} _{0.01}	
5	IRAS 05208	4.5	292 ⁵⁰ ₉₅	923 ⁷⁸ ₁₁₃	0.80 ^{0.05} _{0.10} – 0.20 ^{0.10} _{0.05}		200 ⁵⁰ ₅₀	400 ⁵⁰ ₅₀	0.85 ^{0.01} _{0.01} – 0.15 ^{0.01} _{0.01}	
6	IRAS 09060	3.6	200 ⁵⁰ ₅₀	728 ⁷³ ₁₃₀	0.90 ^{0.05} _{0.05} – 0.10 ^{0.05} _{0.05}		228 ⁷³ ₁₃₀	834 ¹⁴¹ ₂₃₇	0.93 ^{0.02} _{0.02} – 0.07 ^{0.02} _{0.02}	
7	IRAS 09144	6.1	200 ⁵⁰ ₅₀	504 ¹¹¹ ₅₀	0.90 ^{0.05} _{0.05} – 0.10 ^{0.05} _{0.05}		200 ⁵⁰ ₅₀	796 ⁵⁰ ₁₁₁	0.94 ^{0.01} _{0.01} – 0.06 ^{0.01} _{0.01}	
8	IRAS 10174	13.9	300 ⁵⁰ ₅₀	400 ⁵⁰ ₅₀	0.90 ^{0.05} _{0.05} – 0.10 ^{0.05} _{0.05}		100 ⁵⁰ ₅₀	300 ⁵⁰ ₅₀	0.97 ^{0.01} _{0.01} – 0.03 ^{0.01} _{0.01}	
9	IRAS 16230	4.9	200 ⁵⁰ ₅₀	500 ⁵⁰ ₅₀	0.90 ^{0.05} _{0.05} – 0.10 ^{0.05} _{0.05}		100 ⁵⁰ ₅₀	500 ⁵⁰ ₅₀	0.95 ^{0.05} _{0.05} – 0.05 ^{0.05} _{0.05}	
10	IRAS 17038	2.9	317 ⁸⁵ ₈₀	871 ⁶¹ ₈₀	0.80 ^{0.10} _{0.10} – 0.20 ^{0.10} _{0.10}		200 ⁵⁰ ₅₀	591 ⁵⁰ ₉₆	0.97 ^{0.01} _{0.02} – 0.03 ^{0.02} _{0.01}	
11	IRAS 17243	2.3	200 ⁵⁰ ₅₀	486 ⁵⁰ ₈₉	0.90 ^{0.05} _{0.10} – 0.10 ^{0.10} _{0.05}		200 ⁵⁰ ₅₀	600 ⁵⁰ ₅₀	0.90 ^{0.01} _{0.01} – 0.10 ^{0.01} _{0.01}	
12	IRAS 19125	3.9	100 ⁵⁰ ₅₀	200 ⁵⁰ ₅₀	0.90 ^{0.05} _{0.05} – 0.10 ^{0.05} _{0.05}		482 ⁵⁰ ₃₀₉	788 ⁵⁰ ₂₀₆	0.86 ^{0.01} _{0.05} – 0.14 ^{0.05} _{0.01}	
13	IRAS 19157	5.5	200 ⁵⁰ ₅₀	695 ⁵⁰ ₁₀₆	0.90 ^{0.05} _{0.05} – 0.10 ^{0.05} _{0.05}		200 ⁵⁰ ₅₀	705 ¹⁰⁶ ₅₀	0.96 ^{0.01} _{0.01} – 0.04 ^{0.01} _{0.01}	
14	IRAS 20056	3.8	100 ⁵⁰ ₅₀	200 ⁵⁰ ₅₀	0.10 ^{0.20} _{0.10} – 0.90 ^{0.20} _{0.20}		200 ⁵⁰ ₅₀	600 ⁵⁰ ₅₀	0.88 ^{0.01} _{0.01} – 0.12 ^{0.01} _{0.01}	
15	RU Cen	3.4	287 ⁵⁰ ₉₁	575 ⁵⁰ ₁₇₆	0.90 ^{0.05} _{0.30} – 0.10 ^{0.30} _{0.05}		200 ⁵⁰ ₅₀	599 ⁵⁰ ₅₀	0.99 ^{0.01} _{0.01} – 0.01 ^{0.01} _{0.01}	
16	SAO 173329	3.1	200 ⁵⁰ ₅₀	702 ¹³⁹ ₅₀	0.90 ^{0.05} _{0.05} – 0.10 ^{0.05} _{0.05}		200 ⁵⁰ ₅₀	600 ⁵⁰ ₅₀	0.93 ^{0.01} _{0.01} – 0.07 ^{0.01} _{0.01}	
17	ST Pup	8.4	200 ⁵⁰ ₅₀	500 ⁵⁰ ₅₀	0.90 ^{0.05} _{0.05} – 0.10 ^{0.05} _{0.05}		200 ⁵⁰ ₅₀	500 ⁵⁰ ₅₀	0.95 ^{0.01} _{0.01} – 0.05 ^{0.01} _{0.01}	
18	SU Gem	1.8	154 ¹⁰⁵ ₅₄	558 ⁹⁶ ₅₉	0.80 ^{0.10} _{0.10} – 0.20 ^{0.10} _{0.10}		200 ⁵⁰ ₅₀	800 ⁵⁰ ₅₀	0.95 ^{0.01} _{0.01} – 0.05 ^{0.01} _{0.01}	
19	SX Cen	4.3	257 ⁵⁰ ₅₈	968 ⁵⁰ ₆₉	0.80 ^{0.10} _{0.10} – 0.20 ^{0.10} _{0.10}		200 ⁵⁰ ₅₀	691 ⁵⁰ ₉₆	0.94 ^{0.01} _{0.01} – 0.06 ^{0.01} _{0.01}	
20	TW Cam	2.3	261 ⁵⁰ ₆₂	400 ⁵⁰ ₅₀	0.60 ^{0.05} _{0.10} – 0.40 ^{0.10} _{0.10}		100 ⁵⁰ ₅₀	500 ⁵⁰ ₅₀	0.95 ^{0.01} _{0.01} – 0.05 ^{0.01} _{0.01}	
21	UY CMa	2.9	200 ⁵⁰ ₅₀	726 ⁷⁶ ₅₀	0.90 ^{0.05} _{0.05} – 0.10 ^{0.05} _{0.05}		200 ⁵⁰ ₅₀	500 ⁵⁰ ₅₀	0.83 ^{0.01} _{0.01} – 0.17 ^{0.01} _{0.01}	

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Table 2. Erratum for Table A.2 in Gielen et al. (2008): Best-fit parameters deduced from our full spectral fitting. The abundances of small ($2.0\mu\text{m}$) and large ($4.0\mu\text{m}$) grains of the various dust species are given as fractions of the total mass, excluding the dust responsible for the continuum emission. The last column gives the continuum flux contribution, listed as a percentage of the total integrated flux over the full wavelength range.

N°	Name	Olivine		Pyroxene		Forsterite		Enstatite		Continuum
		Small - Large		Small - Large		Small - Large		Small - Large		
1	EP Lyr	0.00 ^{0.00}	– 0.00 ^{0.00}	15.36 ^{12.96}	– 61.34 ^{10.71}	14.43 ^{4.61}	– 0.02 ^{0.00}	0.00 ^{0.00}	– 8.85 ^{4.49}	53.51 ^{3.36}
2	HD 131356	0.00 ^{0.00}	– 30.48 ^{1.50}	2.87 ^{1.79}	– 53.91 ^{2.57}	12.06 ^{0.65}	– 0.03 ^{0.00}	0.00 ^{0.00}	– 0.65 ^{1.34}	76.34 ^{0.30}
3	HD 213985	0.00 ^{0.00}	– 36.08 ^{2.21}	12.58 ^{8.42}	– 29.27 ^{25.84}	8.02 ^{1.63}	– 7.74 ^{4.86}	0.00 ^{0.00}	– 6.31 ^{2.09}	76.21 ^{0.57}
4	HD 52961	0.00 ^{0.00}	– 0.00 ^{0.00}	70.65 ^{1.61}	– 0.00 ^{0.00}	20.84 ^{3.81}	– 8.40 ^{5.18}	0.00 ^{0.00}	– 0.12 ^{0.07}	65.66 ^{0.57}
5	IRAS 05208	0.00 ^{0.00}	– 9.52 ^{2.49}	33.16 ^{1.52}	– 0.00 ^{0.00}	25.76 ^{1.34}	– 0.00 ^{0.00}	2.10 ^{2.13}	– 29.47 ^{2.80}	69.06 ^{0.38}
6	IRAS 09060	0.06 ^{1.80}	– 32.70 ^{4.64}	39.74 ^{3.00}	– 0.48 ^{4.21}	14.95 ^{1.37}	– 1.11 ^{1.97}	0.01 ^{0.40}	– 10.95 ^{3.37}	72.43 ^{1.24}
7	IRAS 09144	0.00 ^{0.00}	– 39.21 ^{2.04}	17.77 ^{1.54}	– 34.88 ^{7.04}	7.99 ^{0.75}	– 0.00 ^{0.00}	0.00 ^{0.00}	– 0.14 ^{1.21}	72.51 ^{0.39}
8	IRAS 10174	8.70 ^{4.93}	– 39.99 ^{4.24}	26.10 ^{2.29}	– 25.21 ^{3.03}	0.00 ^{0.00}	– 0.00 ^{0.00}	0.00 ^{0.00}	– 0.00 ^{0.00}	31.48 ^{0.30}
9	IRAS 16230	0.00 ^{0.00}	– 47.54 ^{2.35}	0.00 ^{0.00}	– 29.46 ^{2.01}	18.20 ^{0.90}	– 4.23 ^{1.38}	0.00 ^{0.00}	– 0.58 ^{1.51}	75.74 ^{0.29}
10	IRAS 17038	0.00 ^{0.00}	– 31.29 ^{2.25}	0.03 ^{0.92}	– 31.02 ^{4.33}	21.65 ^{0.77}	– 0.00 ^{0.00}	0.00 ^{0.00}	– 16.00 ^{1.89}	81.71 ^{0.23}
11	IRAS 17243	0.49 ^{7.03}	– 42.74 ^{2.73}	20.13 ^{10.90}	– 14.61 ^{5.25}	17.34 ^{0.90}	– 0.00 ^{0.00}	0.00 ^{0.00}	– 4.69 ^{1.76}	83.22 ^{0.41}
12	IRAS 19125	8.22 ^{7.72}	– 6.24 ^{6.47}	8.66 ^{8.00}	– 45.53 ^{5.92}	7.98 ^{0.98}	– 7.87 ^{1.34}	0.00 ^{0.00}	– 15.50 ^{2.65}	69.72 ^{0.70}
13	IRAS 19157	0.00 ^{0.00}	– 63.21 ^{5.31}	8.43 ^{4.28}	– 12.05 ^{6.89}	14.58 ^{1.36}	– 0.02 ^{0.94}	0.00 ^{0.00}	– 1.70 ^{2.00}	82.28 ^{0.61}
14	IRAS 20056	0.45 ^{2.96}	– 31.83 ^{3.62}	34.60 ^{3.35}	– 0.30 ^{5.33}	15.86 ^{1.04}	– 0.02 ^{0.85}	0.00 ^{0.00}	– 16.93 ^{1.80}	83.48 ^{0.20}
15	RU Cen	0.00 ^{0.00}	– 27.92 ^{2.17}	1.24 ^{2.06}	– 27.81 ^{3.82}	28.63 ^{1.83}	– 3.34 ^{2.71}	0.00 ^{0.00}	– 11.06 ^{1.77}	80.62 ^{0.34}
16	SAO 173329	0.00 ^{0.00}	– 52.55 ^{1.74}	0.02 ^{0.50}	– 28.64 ^{2.15}	9.21 ^{1.09}	– 0.02 ^{0.00}	0.00 ^{0.00}	– 9.56 ^{2.63}	82.54 ^{0.44}
17	ST Pup	0.00 ^{0.00}	– 32.87 ^{1.29}	0.71 ^{1.86}	– 51.93 ^{1.79}	13.19 ^{0.57}	– 0.03 ^{0.83}	0.00 ^{0.00}	– 1.27 ^{1.16}	54.60 ^{0.53}
18	SU Gem	0.00 ^{0.00}	– 58.69 ^{3.60}	0.70 ^{2.88}	– 12.03 ^{3.97}	23.41 ^{2.31}	– 2.30 ^{3.69}	0.00 ^{0.00}	– 2.87 ^{3.03}	88.40 ^{0.37}
19	SX Cen	0.00 ^{0.00}	– 48.37 ^{3.30}	9.19 ^{11.44}	– 23.70 ^{12.70}	10.82 ^{3.64}	– 0.53 ^{4.29}	0.00 ^{0.00}	– 7.39 ^{4.69}	76.16 ^{0.50}
20	TW Cam	0.00 ^{0.00}	– 84.42 ^{2.04}	0.00 ^{0.00}	– 0.00 ^{0.00}	15.20 ^{1.77}	– 0.00 ^{0.00}	0.00 ^{0.00}	– 0.37 ^{1.84}	90.63 ^{0.15}
21	UY CMa	0.00 ^{0.00}	– 15.55 ^{2.31}	2.54 ^{2.53}	– 58.59 ^{3.01}	16.18 ^{2.50}	– 4.48 ^{2.93}	0.00 ^{0.00}	– 2.65 ^{1.53}	78.14 ^{0.62}

Table 3. Erratum for Table 3 in Gielen et al. (2009a): Best-fit parameters deduced from our full spectral fitting. Listed are the χ^2 , dust, and continuum temperatures and their relative fractions. Best-fit parameters deduced from our full spectral fitting. The abundances of small and large grains of the various dust species are given as fractions of the total mass, excluding the dust responsible for the continuum emission. The last column gives the continuum flux contribution, listed as a percentage of the total integrated flux over the full wavelength range.

Name	χ^2	T_{dust1} (K)	T_{dust2} (K)	Fraction $T_{dust1} - T_{dust2}$	T_{cont1} (K)	T_{cont2} (K)	Fraction $T_{cont1} - T_{cont2}$
EP Lyr	5.4	100 ⁵⁰ ₅₀	200 ⁵⁰ ₅₀	0.90 ^{0.10} _{0.05} – 0.10 ^{0.05} _{0.10}	100 ⁵⁰ ₅₀	643 ³⁰² ₅₀	0.98 ^{0.01} _{0.04} – 0.02 ^{0.04} _{0.01}
HD 52961	50.0	200 ⁵⁰ ₅₀	700 ⁵⁰ ₅₀	0.90 ^{0.05} _{0.05} – 0.10 ^{0.05} _{0.05}	100 ⁵⁰ ₅₀	1000 ⁵⁰ ₅₀	0.99 ^{0.01} _{0.01} – 0.01 ^{0.01} _{0.01}

Name	Olivine		Pyroxene		Forsterite		Enstatite		Continuum
	Small - Large		Small - Large		Small - Large		Small - Large		
EP Lyr	0.24 ^{16.83} _{0.24}	– 8.74 ^{7.92} _{7.64}	7.17 ^{13.69} _{4.79}	– 8.09 ^{12.67} _{7.24}	35.18 ^{3.04} _{2.78}	– 2.08 ^{2.61} _{1.89}	0.00 ^{0.00} _{0.00}	– 38.50 ^{4.30} _{3.46}	57.99 ^{2.53} _{3.60}
HD 52961	0.00 ^{0.00} _{0.00}	– 0.00 ^{0.00} _{0.00}	59.17 ^{4.72} _{0.69}	– 0.00 ^{0.00} _{0.00}	0.77 ^{1.46} _{0.69}	– 40.06 ^{1.02} _{1.62}	0.00 ^{0.00} _{0.00}	– 0.00 ^{0.00} _{0.00}	68.88 ^{3.42} _{0.46}

Table 4. *Erratum for Table 4 in Gielen et al. (2009b):* Best-fit parameters deduced from our full spectral fitting. Listed are the χ^2 , dust, and continuum temperatures and their relative fractions. Best-fit parameters deduced from our full spectral fitting. The abundances of small ($0.1\mu\text{m}$) and large ($2.0\mu\text{m}$) grains of the various dust species are given as fractions of the total mass, excluding the dust responsible for the continuum emission. The last column gives the continuum flux contribution, listed as a percentage of the total integrated flux over the full wavelength range.

Name	χ^2	T_{dust1} (K)	T_{dust2} (K)	Fraction $T_{dust1} - T_{dust2}$	T_{cont1} (K)	T_{cont2} (K)	Fraction $T_{cont1} - T_{cont2}$
MACHO 79.5501.13	5.1	200^{50}_{50}	725^{83}_{50}	$0.90^{0.05}_{0.05} - 0.10^{0.05}_{0.05}$	346^{184}_{246}	623^{99}_{50}	$0.21^{0.69}_{0.18} - 0.79^{0.18}_{0.69}$
MACHO 82.8405.15	3.9	200^{50}_{50}	519^{82}_{75}	$0.90^{0.05}_{0.05} - 0.10^{0.05}_{0.05}$	300^{50}_{50}	500^{50}_{50}	$0.82^{0.03}_{0.02} - 0.18^{0.02}_{0.03}$

Name	Olivine Small - Large	Pyroxene Small - Large	Forsterite Small - Large	Enstatite Small - Large	Continuum
MACHO 79.5501.13	$0.00^{0.00}_{0.00} - 0.00^{0.00}_{0.00}$	$48.45^{4.75}_{7.00} - 0.37^{20.55}_{0.37}$	$0.00^{0.00}_{0.00} - 44.54^{3.47}_{3.32}$	$0.17^{2.86}_{0.17} - 6.47^{5.76}_{4.25}$	$89.27^{0.70}_{0.86}$
MACHO 82.8405.15	$0.96^{7.13}_{0.95} - 4.13^{10.91}_{3.97}$	$52.80^{10.75}_{9.36} - 4.01^{18.56}_{3.92}$	$5.50^{2.76}_{2.26} - 20.52^{6.47}_{7.06}$	$0.14^{3.66}_{0.14} - 11.95^{5.93}_{5.83}$	$82.63^{1.86}_{1.86}$